

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
CELL CULTURE FACILITY
Media Production Formulations

McCoy's 5A Media
(Modified with Tricine)
CCF Product Code Number: CCFAD002 (Old Code AI500)

Compound	Formula	mg/L
Part A: Inorganic Salts		
Calcium chloride (anhydrous)	CaCl ₂	100.00
Magnesium sulfate·7H ₂ O	MgSO ₄ ·7H ₂ O	200.00
Potassium chloride	KCl	400.00
Sodium bicarbonate	NaHCO ₃	500.00
Sodium chloride	NaCl	6460.00
Sodium phosphate·H ₂ O	NaH ₂ PO ₄ ·H ₂ O	580.00
Part B: Other components		
Bacto-Peptone		600.00
D-Glucose	C ₆ H ₁₂ O ₆	3000.00
Glutathione (reduced)	C ₁₀ H ₁₇ N ₃ O ₆ S	0.50
Phenol Red	C ₁₉ H ₁₃ O ₅ S·Na ₂	10.00
Tricine, 1M	C ₆ H ₁₃ NO ₅	50.00 ml
Part C: Amino Acids		
L-Alanine	C ₃ H ₇ NO ₂	13.90
L-Arginine hydrochloride	C ₆ H ₁₄ N ₄ O ₂ HCl	42.10
L-Asparagine	C ₄ H ₈ N ₂ O ₃	45.00
L-Aspartic acid	C ₄ H ₇ NO ₄	19.97
L-Cysteine	C ₃ H ₇ NO ₂ S	31.50
L-Glutamic acid	C ₅ H ₉ NO ₄	22.10
L-Glutamine	C ₅ H ₁₀ N ₂ O ₃	219.20
Glycine	C ₂ H ₅ NO ₂	7.50
L-Histidine HCl H ₂ O	C ₆ H ₉ N ₃ O ₂ HCl H ₂ O	20.96

L-Hydroxyproline	$C_5H_9NO_3$	19.70
L-Isoleucine	$C_6H_{13}NO_2$	39.36
L-Leucine	$C_6H_{13}NO_2$	39.36
L-Lysine HCl	$C_6H_{14}N_2O_2 \cdot HCl$	36.50
L-Methionine	$C_5H_{11}NO_2S$	14.90
L-Phenylalanine	$C_9H_{11}NO_2$	16.50
L-Proline	$C_5H_9NO_2$	17.40
L-Serine	$C_3H_7NO_3$	26.30
L-Threonine	$C_4H_9NO_3$	17.90
L-Tryptophan	$C_{11}H_{12}N_2O_2$	3.10
L-Tyrosine	$C_9H_{11}NO_3$	18.10
L-Valine	$C_5H_{11}NO_2$	17.60

Part D: Vitamins

Ascorbic acid	$C_6H_8O_6$	0.50
Biotin	$C_{10}H_{16}N_2O_3S$	0.20
D-Calcium pantothenate	$C_{18}H_{32}CaN_2O_{10}$	0.20
Choline chloride	$C_5H_{14}ClNO$	5.00
Folic acid	$C_{19}H_{19}N_7O_6$	10.00
i-Inositol	$C_6H_{12}O_6$	36.00
Nicotinamide	$C_6H_6N_2O$	0.50
Nicotinic acid	$C_6H_5NO_2$	0.50
Para-Amino Benzoic Acid	$C_7H_7NO_2$	1.00
Pyridoxal hydrochloride	$C_8H_9NO_3 \cdot HCl$	0.50
Pyridoxine hydrochloride	$C_8H_{12}ClNO_3$	0.50
Riboflavin	$C_{17}H_{20}N_4O_6$	0.20
Thiamine hydrochloride	$C_{12}H_{17}ClN_4OS \cdot HCl$	0.20
Vitamin B ₁₂	$C_{63}H_{88}CoN_{14}O_{14}P$	2.00

pH 7.4 Osmolarity: 335-342 mOsm